

Title (en)
Substrate for epitaxial growth

Title (de)
Substrat zum epitaktischen Wachstum

Title (fr)
Substrat pour croissance épitaxiale

Publication
EP 1431426 A2 20040623 (EN)

Application
EP 03257970 A 20031217

Priority
JP 2002366679 A 20021218

Abstract (en)
A substrate for epitaxial growth allowing formation of an Al-containing group III nitride film having high crystal quality is provided. A nitride film containing at least Al is formed on a 6H-SiC base by CVD at a temperature of at least 1100°C, for example. The substrate for epitaxial growth allowing formation of an Al-containing group III nitride film having high crystal quality is obtained by setting the dislocation density of the nitride film to not more than 1×10^{11} /cm², the full width at half maximum of an X-ray rocking curve for (002) plane to not more than 200 seconds and the full width at the half maximum of the X-ray rocking curve for (102) plane to not more than 1500 seconds.

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C30B 25/18; **C30B 29/38**; **H01L 21/20**

IPC 8 full level
H01L 21/20 (2006.01); **C30B 25/02** (2006.01); **C30B 25/18** (2006.01); **C30B 29/38** (2006.01); **H01L 21/205** (2006.01); **H01L 29/267** (2006.01)

CPC (source: EP US)
C30B 25/02 (2013.01 - EP US); **C30B 25/18** (2013.01 - EP US); **C30B 29/403** (2013.01 - EP US); **H01L 21/02378** (2013.01 - EP US); **H01L 21/0243** (2013.01 - EP US); **H01L 21/02458** (2013.01 - EP US); **H01L 21/0254** (2013.01 - EP US); **H01L 21/0262** (2013.01 - EP US); **Y10T 428/12528** (2015.01 - EP US); **Y10T 428/265** (2015.01 - EP US)

Cited by
US8134181B2; KR101363316B1; EP3157045A1; WO2008011897A1; US7585772B2; US8415766B2

Designated contracting state (EPC)
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